



**THE DATASHEET OF  
CMKZ5223B TR**



CMKZ5221B THRU CMKZ5261B

SURFACE MOUNT  
TRIPLE ISOLATED  
SILICON ZENER DIODES  
5% TOLERANCE



www.centrasemi.com

ULTRAmulti™



SOT-363 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMKZ5221B Series contains three (3) isolated Silicon Zener Diodes packaged in an ULTRAmulti™ SOT-363 surface mount case, designed for use in industrial, commercial, entertainment and computer applications. Higher voltage devices are available on special order.

MARKING CODE: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

SYMBOL		UNITS
$P_D$	200	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	625	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS PER DIODE: ( $T_A=25^\circ\text{C}$ )  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$ mA	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAX. TEMP. COEFF. $\theta_{V_Z}$ % / $^\circ\text{C}$	MARK. CODE
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$	$I_R @ V_R$			
	V	V	V		$\Omega$	$\Omega$	$\mu\text{A}$	V			
CMKZ5221B	2.280	2.4	2.520	20	30	1200	0.25	100	1.0	-0.085	8A1T
CMKZ5222B	2.375	2.5	2.625	20	30	1250	0.25	100	1.0	-0.085	8B1T
CMKZ5223B	2.565	2.7	2.835	20	30	1300	0.25	75	1.0	-0.080	8C1T
CMKZ5224B	2.660	2.8	2.940	20	30	1400	0.25	75	1.0	-0.080	8D1T
CMKZ5225B	2.850	3.0	3.150	20	29	1600	0.25	50	1.0	-0.075	8E1T
CMKZ5226B	3.135	3.3	3.465	20	28	1600	0.25	25	1.0	-0.070	8ACT
CMKZ5227B	3.420	3.6	3.780	20	24	1700	0.25	15	1.0	-0.065	8BCT
CMKZ5228B	3.705	3.9	4.095	20	23	1900	0.25	10	1.0	-0.060	8CCT
CMKZ5229B	4.085	4.3	4.515	20	22	2000	0.25	5.0	1.0	$\pm 0.055$	8DCT
CMKZ5230B	4.465	4.7	4.935	20	19	1900	0.25	5.0	2.0	$\pm 0.030$	8ECT
CMKZ5231B	4.845	5.1	5.335	20	17	1600	0.25	5.0	2.0	$\pm 0.030$	8FCT
CMKZ5232B	5.320	5.6	5.880	20	11	1600	0.25	5.0	3.0	+0.038	8GCT
CMKZ5233B	5.700	6.0	6.300	20	7.0	1600	0.25	5.0	3.5	+0.038	8HCT
CMKZ5234B	5.890	6.2	6.510	20	7.0	1000	0.25	3.0	4.0	+0.045	8JCT
CMKZ5235B	6.460	6.8	7.140	20	5.0	750	0.25	3.0	5.0	+0.050	8KCT
CMKZ5236B	7.125	7.5	7.875	20	6.0	500	0.25	3.0	6.0	+0.058	8LCT
CMKZ5237B	7.790	8.2	8.610	20	8.0	500	0.25	3.0	6.5	+0.062	8MCT
CMKZ5238B	8.265	8.7	9.135	20	8.0	600	0.25	3.0	6.5	+0.065	8NCT
CMKZ5239B	8.645	9.1	9.555	20	10	600	0.25	3.0	7.0	+0.068	8PCT

CMKZ5221B THRU CMKZ5261B

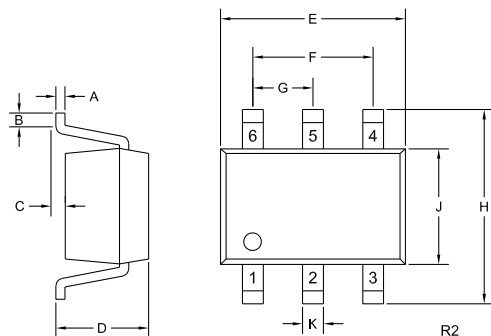
SURFACE MOUNT  
TRIPLE ISOLATED  
SILICON ZENER DIODES  
5% TOLERANCE



ELECTRICAL CHARACTERISTICS - Continued: ( $T_A=25^\circ\text{C}$ )  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

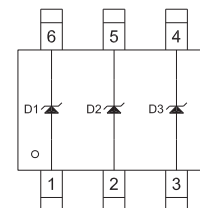
TYPE	ZENER VOLTAGE			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAX. TEMP. COEFF.	MARK. CODE
	$V_Z @ I_{ZT}$				$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$			
	MIN	NOM	MAX	$\mu\text{A}$				V	$\% / ^\circ\text{C}$		
CMKZ5240B	9.500	10	10.50	20	17	600	0.25	3.0	8.0	+0.075	8QCT
CMKZ5241B	10.45	11	11.55	20	22	600	0.25	2.0	8.4	+0.076	8RCT
CMKZ5242B	11.40	12	12.60	20	30	600	0.25	1.0	9.1	+0.077	8SCT
CMKZ5243B	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9	+0.079	8TCT
CMKZ5244B	13.30	14	14.70	9.0	15	600	0.25	0.1	10	+0.082	8UCT
CMKZ5245B	14.25	15	15.75	8.5	16	600	0.25	0.1	11	+0.082	8VCT
CMKZ5246B	15.20	16	16.80	7.8	17	600	0.25	0.1	12	+0.083	8WCT
CMKZ5247B	16.15	17	17.85	7.4	19	600	0.25	0.1	13	+0.084	8XCT
CMKZ5248B	17.10	18	18.90	7.0	21	600	0.25	0.1	14	+0.085	8YCT
CMKZ5249B	18.05	19	19.95	6.6	23	600	0.25	0.1	14	+0.086	8ZCT
CMKZ5250B	19.00	20	21.00	6.2	25	600	0.25	0.1	15	+0.086	1A8T
CMKZ5251B	20.90	22	23.10	5.6	29	600	0.25	0.1	17	+0.087	1B8T
CMKZ5252B	22.80	24	25.20	5.2	33	600	0.25	0.1	18	+0.088	1C8T
CMKZ5253B	23.75	25	26.25	5.0	35	600	0.25	0.1	19	+0.089	1D8T
CMKZ5254B	25.65	27	28.35	4.6	41	600	0.25	0.1	21	+0.090	1E8T
CMKZ5255B	26.60	28	29.40	4.5	44	600	0.25	0.1	21	+0.091	1F8T
CMKZ5256B	28.50	30	31.60	4.2	49	600	0.25	0.1	23	+0.091	1G8T
CMKZ5257B	31.35	33	34.65	3.8	58	700	0.25	0.1	25	+0.092	1H8T
CMKZ5258B	34.20	36	37.80	3.4	70	700	0.25	0.1	27	+0.093	1J8T
CMKZ5259B	37.05	39	40.95	3.2	80	800	0.25	0.1	30	+0.094	1K8T
CMKZ5260B	40.85	43	45.15	3.0	93	900	0.25	0.1	33	+0.095	1L8T
CMKZ5261B	44.65	47	49.35	2.7	105	1000	0.25	0.1	36	+0.095	1M8T

SOT-363 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.010	0.10	0.25
B	0.005	-	0.12	-
C	0.000	0.004	0.00	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.075	0.091	1.90	2.30
J	0.043	0.055	1.10	1.40
K	0.006	0.012	0.15	0.30

SOT-363 (REV: R2)



LEAD CODE:

- 1) Anode D1
- 2) Anode D2
- 3) Anode D3
- 4) Cathode D3
- 5) Cathode D2
- 6) Cathode D1

R2 (13-January 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
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Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
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**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

# Product End of Life Notification

<b>PDN ID:</b>	PDN01128
<b>Notification Date:</b>	4/16/19
<b>Last Buy Date:</b>	10/16/19
<b>Last Shipment Date</b>	4/16/20

Summary: The CMKZ5221B Series of Zener diodes are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CMKZ5221B BK	N/A, Stock Only
CMKZ5221B TR	N/A, Stock Only
CMKZ5222B BK	N/A, Stock Only
CMKZ5222B TR	N/A, Stock Only
CMKZ5223B BK	N/A, Stock Only
CMKZ5223B TR	N/A, Stock Only
CMKZ5224B BK	N/A, Stock Only
CMKZ5224B TR	N/A, Stock Only
CMKZ5225B BK	N/A, Stock Only
CMKZ5225B TR	N/A, Stock Only
CMKZ5226B BK	N/A, Stock Only
CMKZ5226B TR	N/A, Stock Only
CMKZ5227B BK	N/A, Stock Only
CMKZ5227B TR	N/A, Stock Only
CMKZ5228B BK	N/A, Stock Only
CMKZ5228B TR	N/A, Stock Only
CMKZ5229B BK	N/A, Stock Only
CMKZ5229B TR	N/A, Stock Only
CMKZ5230B BK	N/A, Stock Only
CMKZ5230B TR	N/A, Stock Only
CMKZ5231B BK	N/A, Stock Only
CMKZ5231B TR	N/A, Stock Only
CMKZ5232B BK	N/A, Stock Only
CMKZ5232B TR	N/A, Stock Only
CMKZ5233B BK	N/A, Stock Only
CMKZ5233B TR	N/A, Stock Only
CMKZ5234B BK	N/A, Stock Only
CMKZ5234B TR	N/A, Stock Only
CMKZ5235B BK	N/A, Stock Only
CMKZ5235B TR	N/A, Stock Only
CMKZ5236B BK	N/A, Stock Only
CMKZ5236B TR	N/A, Stock Only
CMKZ5237B BK	N/A, Stock Only
CMKZ5237B TR	N/A, Stock Only
CMKZ5238B BK	N/A, Stock Only
CMKZ5238B TR	N/A, Stock Only
CMKZ5239B BK	N/A, Stock Only
CMKZ5239B TR	N/A, Stock Only

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DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

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\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

<u>Central Part Number</u>	<u>Replacement</u>
CMKZ5240B BK	N/A, Stock Only
CMKZ5240B TR	N/A, Stock Only
CMKZ5241B BK	N/A, Stock Only
CMKZ5241B TR	N/A, Stock Only
CMKZ5242B BK	N/A, Stock Only
CMKZ5242B TR	N/A, Stock Only
CMKZ5243B BK	N/A, Stock Only
CMKZ5243B TR	N/A, Stock Only
CMKZ5244B BK	N/A, Stock Only
CMKZ5244B TR	N/A, Stock Only
CMKZ5245B BK	N/A, Stock Only
CMKZ5245B TR	N/A, Stock Only
CMKZ5246B BK	N/A, Stock Only
CMKZ5246B TR	N/A, Stock Only
CMKZ5247B BK	N/A, Stock Only
CMKZ5247B TR	N/A, Stock Only
CMKZ5248B BK	N/A, Stock Only
CMKZ5248B TR	N/A, Stock Only
CMKZ5249B BK	N/A, Stock Only
CMKZ5249B TR	N/A, Stock Only
CMKZ5250B BK	N/A, Stock Only
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CMKZ5251B TR	N/A, Stock Only
CMKZ5252B BK	N/A, Stock Only
CMKZ5252B TR	N/A, Stock Only
CMKZ5253B BK	N/A, Stock Only
CMKZ5253B TR	N/A, Stock Only
CMKZ5254B BK	N/A, Stock Only
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CMKZ5256B TR	N/A, Stock Only
CMKZ5257B BK	N/A, Stock Only
CMKZ5257B TR	N/A, Stock Only
CMKZ5258B BK	N/A, Stock Only
CMKZ5258B TR	N/A, Stock Only
CMKZ5259B BK	N/A, Stock Only
CMKZ5259B TR	N/A, Stock Only
CMKZ5260B BK	N/A, Stock Only
CMKZ5260B TR	N/A, Stock Only
CMKZ5261B BK	N/A, Stock Only
CMKZ5261B TR	N/A, Stock Only

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<u>Central Part Number</u>	<u>Replacement</u>
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Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

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## Looking for pricing, stock, or lifecycle information?

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 [Central Semiconductor Corp Information](#)

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-  Shortage Management
-  Alternative Solution
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